Table of Contents: Volume 3, 1994

Number 1

The Descent Monomials and a Basis for the Diagonally Symmetric Polynomials ..... *E.E. Allen* 5

Conjectures on the Quotient Ring by Diagonal Invariants ..... *Mark D. Haiman* 17

Non-Cayley Vertex-Transitive Graphs of Order Twice the Product of Two Odd Primes ..... *Alice Ann Miller and Cheryl E. Praeger* 77

Cyclic arcs in $PG(2, q)$ ..... *L. Storme and H. Van Maldeghem* 113

Number 2

A Construction of Difference Sets in High Exponent 2-Groups Using Representation Theory ..... *James A. Davis and Ken Smith* 137

ℓ_1-Rigid Graphs ..... *M. Deza and M. Laurent* 153

Completely Regular Designs of Strength One ..... *William J. Martin* 177

Hilbert Series of Group Representations and Gröbner Bases for Generic Modules ..... *Shmuel Onn* 187

On the Newton Polytope of the Resultant ..... *Bernd Sturmfels* 207

Number 3

Spin Models on Finite Cycle Groups ..... *Eiichi Bannai and Etsuko Bannai* 243

Partition Lattice q-Analogs Related to q-Stirling Numbers ..... *Curtis Bennett, Kathy J. Dempsey, and Bruce E. Sagan* 261

Basis-Transitive Matroids ..... *Anne Delandtsheer and Huiling Li* 285

q-Hypergeometric Series and Macdonald Functions ..... *Naihuan Jing* 291

Automorphisms and Isomorphisms of Symmetric and Affine Designs ..... *William M. Kantor* 307

Number 4

1/2-Transitive Graphs of Order $3p$ ..... *Brian Alspach and Ming-Yao Xu* 347

Duality of Graded Graphs ..... *Sergey Fomin* 357

Projective Planes of Order q Whose Collineation Groups Have Order q^2 ..... *William M. Kantor* 405